

REMARKS

With this amendment, claims 1, 5, 10, 18, and 21-23 are pending. Previously withdrawn claims are canceled. No new matter is introduced by the amendment, which simply cancels claims in conformity with the restriction requirement. No public dedication or prejudice to subsequent renewal of the claims is intended.

Claims 1, 10, 18, and 21-22 were rejected for alleged anticipation by Mezzetti. Claims 1, 5, 10, 18 and 21-23 were rejected for alleged obviousness over Mezzetti in light of USPN 6,653,530. Applicants traverse all rejections for reasons of record and as noted herein.

ANTICIPATION REJECTION OVER MEZZETTI

The Examiner maintains his rejection of claims 1, 10, 18 and 21-22 over Mezzetti for alleged anticipation. Applicants traverse.

In relation to Applicants' previous arguments, the Examiner asserts that "Applicants have grossly misapprehended the reference. The reference clearly teaches that the method employed is an organogenic one (ie., a method that skips the callus phase and regenerates organs directly from meristematic tissue)."

Respectfully, the Examiner is wrong. Mezzetti uses a callus intermediate.

Applicants provide herewith an expert declaration from Dr. Firoozabady, addressing Mezzetti, et al.

As Dr. Firoozabady notes:

The method described by Mezzetti et al consists of inducing meristematic bulks by long term culture of shoot meristems with repeated mechanical treatment (continuous removal of meristems) and slicing of the tissues very thinly and repeatedly for three months, then maintaining and subculturing these monthly until used for transformation (see Figures 1, 2A, 3 and 4). Everyone familiar with the art of tissue culture realizes that after going through such long culture and other procedures the tissues go through undifferentiation and production of non-organized tissues (callus). Indeed, the thin slices in Fig 3A of Mezzetti clearly show this. The figure shows that the tissues consists of callus and organized meristematic regions.

Furthermore, Mezzetti et al. expressly distinguish their method from direct organogenesis from lateral auxillary shoots or leaf,

arguing that the slicing and culturing of the meristematic bulk (which, as noted above, results in callus) is “critical” to their methods. Page 5, column 2. Not only is Mezzetti teaching a method that is essentially the opposite of what the application claims, one of skill would have been lead to believe from Mezzetti that that the claimed methods of the invention would not work.

As Dr. Firoozabady indicates, in sharp contrast to Mezzetti, the present invention utilizes direct regeneration, e.g., of shoots from cultured leaf bases. As shown in the figures associated with the declaration, leaf bases from the shoots have meristems attached to them, or have meristem regions developed at their bases. The meristems produce transformed shoots directly.

Because the cited art teaches essentially the *opposite* of what is being claimed, and, indeed, indicates that the *claimed method does not work*, there is no rational way to extract the invention from Mezzetti, et al. The rejection is therefore improper and must be withdrawn.

OBVIOUSNESS REJECTION OVER MEZZETTI

Claims 1, 5, 10, 18, and 21-23 are rejected over Mezzetti in light of USPN 6,653,530. Applicants traverse.

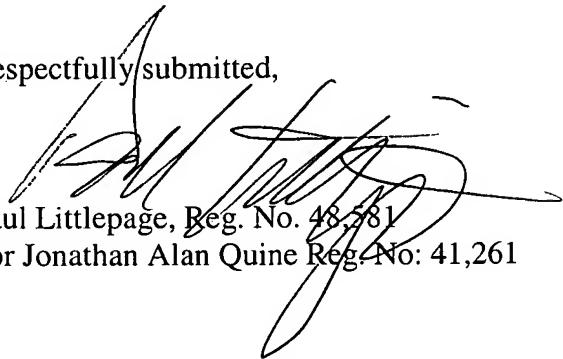
Applicants note that this rejection was maintained for essentially the reasons noted above. Applicants stand on their previous arguments, in light of Dr. Firoozabady’s declaration and the comments presented above. In combination, the references fail to provide a basis for a *prima facie* case of obviousness. Specifically, nothing in the combination of references teaches the claimed invention. No “direct” organogenic transformation method is even hinted at by the combination of references; indeed, Mezzetti argues that the slicing and culturing approach, which results in callus, is “critical” to their method. This is as clear and direct a “teaching away” from the claimed invention as one ever finds. The invention is, accordingly, not obvious. The rejection must be withdrawn.

Appl. No. 10/536,885
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Reply to Office action of December 4, 2008

If the claims are deemed not to be in condition for allowance after consideration of this Response, a telephone interview with the Examiner is hereby requested. Please telephone Jonathan Quine at (510) 337-7871 to schedule an interview.

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Respectfully submitted,


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Attachments:

- 1) A transmittal sheet;
- 2) A fee transmittal sheet;
- 3) A petition to extend the period of response for **1 month**;
- 4) A Notice of Appeal;
- 5) An expert declaration
- 6) Appendix A;
- 7) CV of Ebrahim Firoozabady and,
- 8) A receipt indication postcard.